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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/924,505	08/09/2001	Atsuhito Suzuki	500.40468X00	4075
20457	7590	08/04/2004	EXAMINER	
ANTONELLI, TERRY, STOUT & KRAUS, LLP 1300 NORTH SEVENTEENTH STREET SUITE 1800 ARLINGTON, VA 22209-9889			INGBERG, TODD D	
			ART UNIT	PAPER NUMBER
			2124	

DATE MAILED: 08/04/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

<b>Office Action Summary</b>	<b>Application No.</b> 09/924,505	<b>Applicant(s)</b> SUZUKI ET AL.	
	<b>Examiner</b> Todd Ingberg	<b>Art Unit</b> 2124	

**-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --**

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 27 May 2004.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-25 is/are pending in the application.  
4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-25 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 09 August 2001 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  
a) ☒ All    b) ☐ Some \* c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)  | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                                   | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)             |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____  |

### **DETAILED ACTION**

Claims 1 – 25 have been examined.

#### ***Priority***

1. Receipt is acknowledged of papers submitted under 35 U.S.C. 119(a)-(d), which papers have been placed of record in the file. The effective filing date of the application is September 8, 2000.

#### ***Information Disclosure Statement***

2. The information disclosure statement filed August 29, 2001 fails to comply with the provisions of 37 CFR 1.97, 1.98 and MPEP § 609 because the PTO-1449 form was not used. It has been placed in the application file, but the information referred to therein has not been considered as to the merits. Applicant is advised that the date of any re-submission of any item of information contained in this information disclosure statement or the submission of any missing element(s) will be the date of submission for purposes of determining compliance with the requirements based on the time of filing the statement, including all certification requirements for statements under 37 CFR 1.97(e). See MPEP § 609 ¶ C(1).

#### ***Terms and Definitions***

3. The Workflow Management Coalition (WFMC) define a workflow system to be:

A ***“The computerization facilities or automation of a business process, in part or whole”***

From the Workflow Reference model January 19, 1995

B. ***“A system that defines, creates and manages the execution of work flows through the use of software running on one or more workflow engines, which is able to interpret the***

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*process definition, interact with workflow participants and, where required, invoke the use of IT tools and applications.”*. Page 16 of Workflow Handbook 2001 by Layna Fischer.

### ***Claim Rejections - 35 USC § 102***

4. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

5. Claims 1 – 25 are rejected under 35 U.S.C. 102(b) as being anticipated by ControlShell Version 6.0 User’s Manual (referred to as CS) published January 1999.

#### **Claim 1**

CS anticipates a workflow management method for previously defining a plurality of states ( CS, page 4-15) and transitions between the states as a process definition to process a state transition for a process instance ( CS is an object oriented implementation – 3-5 to 3-9) in response to an inputted state transition request( CS, pages 4-16 to 4-19, stimulus), said method comprising: a synchronous processing step for processing a state transition for a process instance during an interval ( CS, pages 4-3 and 7-3, clock) of from accepting of said inputted state transition request to return of a response ( CS, page 9-13, return codes): an synchronous processing step for processing a state transition for a process instance after said inputted state transition request is accepted and a response is returned (CS, see example on page 9-31),; and a selecting step for selecting said synchronous processing step or said asynchronous processing step for execution based on inputted selection information (see details in Examiner’s Response below – this concept is too detailed to point at a section other than pages 5-47), as a state transition process for a process instance associated for said inputted state transition request (CS, page 3-9, FSM and STC with Chapter 9 is dedicated to the FSM pages 9-1 to 9-40, on example is on page 9-31 see figure ).

#### Examiner’s Response

Examiner has elected to add more detail to ensure clarity on the types of processing and the support in the reference.

**synchronously** processing a state transition for a process instance from receipt of said inputted state transition request to return of a response – page 5-47 Extender types enable the different diagrams to be inserted into different objects. State transition of the FSM within an object does not cause messaging from one object to another. This is synchronously processing state transitions. The ability to have FSM external and communicate via object messaging is **asynchronously** processing a state transition for a process. The CS tools allows for multiple

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FSM. The ability to model and internal FSM to an object and then message to an external FSM meets this limitation.

**Claim 2**

A workflow management method according to claim 1, wherein: said selecting step includes generating a program for calling the processing step corresponding to the inputted selection information (CS, Chapter 13 covers the generation of C++ Code, specifically for the state machine see page 13-13 and page 11-11).

**Claim 3**

A workflow management method according to claim 1, wherein: said selection information is previously defined synchronousness information. (CS, see table 3.1 for structure of the ControlShell Element which is defined and described pages 3-8 to 3-9).

**Claim 4**

A workflow management method according to claim 3, wherein: said synchronousness information is included in said process definition. (CS, pages 11-6 to 11-7, for defining methods for STC).

**Claim 5**

A workflow management method according to claim 4, wherein: said synchronousness information is included in environment information of a workflow application run time execution environment. (CS, page 4-3, Figure 4.2 Operating System Parameters).

**Claim 6**

A workflow management method according to claim 3, wherein: said synchronousness information is included in environment information of a workflow management program run time execution environment. (CS, page 4-3, Figure 4.2 Operating System Parameters).

**Claim 7**

A workflow management method according to claim 4, wherein: each transition definition between states has said synchronousness information. (CS, Chapter 9 is dedicated to the FSM pages 9-1 to 9-40, on example is on page 9-31 see figure ).

**Claim 8**

A workflow management method according to claim 4, wherein: each of said states has said synchronousness information. (CS, Chapter 9 is dedicated to the FSM pages 9-1 to 9-40, on example is on page 9-31 see figure ).

**Claim 9**

A workflow management method according to claim 5, wherein: each process definition has said synchronousness information. (CS, Chapter 9 is dedicated to the FSM pages 9-1 to 9-40, on example is on page 9-31 see figure ).

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**Claim 10**

CS anticipates a workflow management apparatus for previously defining a plurality of states possibly taken by a process instance, and transitions between the states as a process definition to process a state transition for the process instance in response to an inputted state transition request, said apparatus comprising: synchronous processing means for processing a state transition for a process instance during an interval of from accepting of said inputted state transition request to return of a response asynchronous processing means for processing a state transition for a process instance after said inputted state transition request is accepted and a response is returned; and selecting means for selecting said synchronous processing means or said asynchronous processing means for execution based on inputted selection information, as a state transition process for a process instance associated for said inputted state transition request.

Examiner's Response

The limitations are met by the rejection for claim 1. Examiner has elected to add more detail to ensure clarity on the types of processing and the support in the reference.

**synchronously** processing a state transition for a process instance from receipt of said inputted state transition request to return of a response – page 5-47 Extender types enable the different diagrams to be inserted into different objects. State transition of the FSM within an object does not cause messaging from one object to another. This is synchronously processing state transitions. The ability to have FSM external and communicate via object messaging is **asynchronously** processing a state transition for a process. The CS tools allows for multiple FSM. The ability to model and internal FSM to an object and then message to an external FSM meets this limitation.

**Claim 11**

CS anticipates a computer readable recording medium having stored thereon a workflow management program for previously defining a plurality of states possibly taken by a process instance, and transitions between the states as a process definition to process a state transition for the process instance in response to an inputted state transition request, said program comprising: a synchronous processing step for processing a state transition for a process instance from receipt of said inputted state transition request to return of a response; an asynchronous processing step for processing a state transition for a process instance after said inputted state transition request is accepted and a response is returned; and an executing step for selecting said synchronous processing step or said asynchronous processing step for execution based on inputted selection information as a state transition process for a process instance associated for said inputted state transition request.

Examiner's Response

The limitations are met by the rejection for claim 1. Examiner has elected to add more detail to ensure clarity on the types of processing and the support in the reference.

**synchronously** processing a state transition for a process instance from receipt of said inputted state transition request to return of a response – page 5-47 Extender types enable the different diagrams to be inserted into different objects. State transition of the FSM within an object does not cause messaging from one object to another. This is synchronously processing state transitions. The ability to have FSM external and communicate via object messaging is **asynchronously** processing a state transition for a process. The CS tools allows for multiple

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FSM. The ability to model and internal FSM to an object and then message to an external FSM meets this limitation.

**Claim 12**

CS anticipates a workflow management method comprising the steps of: previously defining a plurality of states possibly taken by a process instance (CS, pages 3-9 definition of FSM and STC), and transitions between the states as a process definition; inputting a state transition request; and controlling execution of a state transition process for a process instance associated for said inputted state transition request based on inputted transition process control information. (CS, Chapter 9 is dedicated to the FSM pages 9-1 to 9-40, on example is on page 9-31 see figure with stimulus, branches and successor states).

**Claim 13**

A workflow management method according to claim 12, wherein: said state transition process control information (CS, Chapter 9 is dedicated to the FSM pages 9-1 to 9-40, on example is on page 9-31 see figure with stimulus, branches and successor states) includes priority information, said priority information being relied on when a plurality of said state transition requests should be processed, for selecting from said state transition requests a state transition request to be processed. (CS, page D-19 priority stimulus and page 9-10).

**Claim 14**

A workflow management method according to claim 12, wherein: said state transition process control information includes available computer resource amount information (CS, page 4-3, Figure 4.2 Operating System Parameters), wherein said method further includes comparing the sum of a computer resource amount used for previously processed state transition requests and a computer resource amount used for said state transition request with a value defined by said available computer resource amount information to determine whether or not said state transition request is processed. (CS, page 13-20, OnInstance verification)

**Claim 15**

A workflow management method according to claim 14, wherein: said computer resource amount is a main storage capacity used for processing said state transition request. As per claim 14 the object instantiation verifies prior to instantiation of objects.

**Claim 16**

A workflow management method according to claim 14, wherein: said computer resource amount is an auxiliary storage amount used for processing said state transition request. (CS, persistent, page 9-7 to 9-8).

**Claim 17**

A workflow management method according to claim 14, wherein: said computer resource amount is the number of threads used for processing said state transition request. (CS, page 1-15, Full multi thread control and support ).



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**Claim 18**

A workflow management method according to claim 12, wherein: said transition process control information is previously defined transition process definition information. (CS, Chapter 9 is dedicated to the FSM pages 9-1 to 9-40, on example is on page 9-31 see figure).

**Claim 19**

A workflow management method according to claim 18, wherein: said transition process definition information is included in said workflow management. (CS, Chapter 9 is dedicated to the FSM pages 9-1 to 9-40, on example is on page 9-31 see figure).

**Claim 20**

A workflow management method according to claim 18, wherein: said transition process definition information is included in environment information of a workflow application run time execution environment. (CS, page 4-3, Figure 4.2 Operating System Parameters).

**Claim 21**

A workflow management method according to claim 18, wherein: said transition process definition information is included in environment information of a workflow management program run time execution environment. (CS, page 4-3, Figure 4.2 Operating System Parameters).

**Claim 22**

A workflow management method according to claim 19, wherein: each transition definition between the states has said transition process definition information. (CS, pages 11-6 to 11-7, for defining methods for STC).

**Claim 23**

A workflow management method according to claim 19, wherein: each said states has said transition process definition information. (CS, pages 11-6 to 11-7, for defining methods for STC).

**Claim 24**

A workflow management method according to claim 19, wherein: each process definition has said transition process definition information. (CS, page 3-9, FSM and STC).

**Claim 25**

CS anticipates a computer-implemented workflow management program for previously defining a plurality of states possibly taken by a process instance, and transitions between the states as a process definition to process a state transition for the process instance in response to an input state transition request, said program causing the computer to perform: synchronously processing a state transition for a process instance from receipt of said inputted state transition request to return of a response; causing the computer to perform asynchronously processing a state transition for a process instance after said inputted state transition request is accepted and a response is returned; and causing the computer to perform selecting said synchronous processing

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or said asynchronous processing for execution based on inputted selection information as a state transition process for a process instance associated for said input state transition request.

#### Examiner's Response

The limitations are met by the rejection for claim 1. Examiner has elected to add more detail to ensure clarity on the types of processing and the support in the reference.

**synchronously** processing a state transition for a process instance from receipt of said inputted state transition request to return of a response – page 5-47 Extender types enable the different diagrams to be inserted into different objects. State transition of the FSM within an object does not cause messaging from one object to another. This is synchronously processing state transitions. The ability to have FSM external and communicate via object messaging is **asynchronously** processing a state transition for a process. The CS tools allows for multiple FSM. The ability to model and internal FSM to an object and then message to an external FSM meets this limitation.

#### *Conclusion*

6. The Examiner attempted to cite only a few portions of the document. The challenge the Examiner faced was most of the document reads on the claimed invention. Among the sections the Examiner did not cite was sections like the section where the reader is walked through the modeling process. The reference needs to be taken as a whole. No arguments directed toward the “cited portion” of the document will be persuasive. ControlShell is a substantial product which excellent documentation. The reference as a whole must be read and considered.

#### *Correspondence Information*

7. Any inquiry concerning this communication or earlier communications from the examiner should be directed to **Todd Ingberg** whose telephone number is (703) 305-9775. The examiner can normally be reached during the following hours:

Monday	Tuesday	Wednesday	Thursday	Friday
6:15 – 1:30	6:15- 3:45	6:15 – 4:45	6:15-3:45	6:15-130

This schedule began December 1, 2003 and is subject to change.

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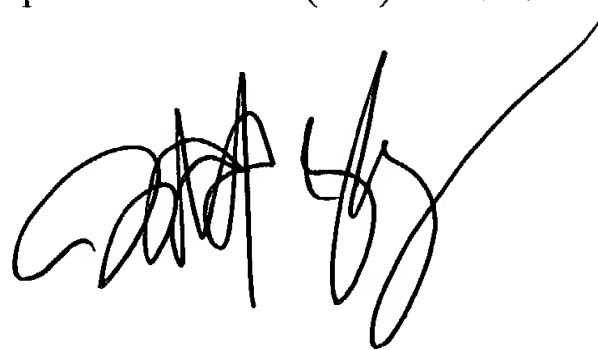
If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, **Kakali Chaki** can be reached on (703) 305-9662. Please, note that as of August 4, 2003 the **FAX number** changed for the organization where this application or proceeding is assigned is **(703) 872-9306**.

Also, be advised the United States Patent Office **new address** is

Post Office Box 1450

Alexandria, Virginia 22313-1450

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 305-9700.

A handwritten signature in black ink, appearing to read 'Todd Ingberg', with a long, sweeping horizontal line extending to the right.

**Todd Ingberg**  
Primary Examiner  
Art Unit 2124  
July 26, 2004